Attorney's Docket No.: 14620-017001



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Rinehart et al.

Art Unit : 1651

Examiner: R. Gitomer

Filed

: October 3, 2001

Title

: METABOLITES OF ECTEINASCIDIN 743 FORMED BY HUMAN

CYTOCHROME CYP3A4

MAIL STOP AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants submit the references listed on the attached form PTO-1449. References AP, AQ and AIIII are non-English language documents. Pursuant to MPEP § 609, an English language abstract is included with each of the references AP, AQ and AIIII to fulfill the requirement for providing a concise explanation of relevance for non-English language documents.

Applicants wish to bring to the Examiner's attention the following co-pending non-Provisional applications: all of which have overlapping inventorship with the above-referenced application:

Serial No.	Applicants	<u>Filed</u>	Status
09/979,404	Cuevas et al.	03/06/02	Pending
10/240,963	Flores et al.	03/19/03	Pending
10/257,856	Francesch et al.	03/31/03	Pending
10/257,857	Cuevas et al.	03/31/03	Pending
10/484,060	Martinez et al.	01/16/04	Pending
10/485,536	Gallego et al.	02/02/2004	Pending

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Denise A. Rose

Typed or Printed Name of Person Signing Certificate

Applicant: Rinehart et al.

Serial No.: 09/971,852 Filed: October 3, 2001

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This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. A check for \$180 in payment of the late submission fee of §1.17(p) is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No.: 14620-017001.

Respectfully submitted,

Attorney's Docket No.: 14620-017001

Date: August 4, 2004

John T. Kendall, Ph.D.

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Substitute Form PTO-1449 (Modified)

U.S. Department of Commerce Patent and Trademark Office

Attorney's Docket No. 14620-017001

Application No. 09/971,852

AUG 0 6 2004

Information Disclosure Statement
by Applicant
sees several sheets if necessary)

Andres Francesch et al.

Filing Date

Applicant

Group Art Unit

October 3, 2001

1651

	•		U.S. Pate	nt Documents	 *		
Examiner Initial	Desig . ID	Document Number	Publicatio n Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,089,273	02/18/1992	Rinehart et al.	424	520	
	AB	5,149,804	09/22/1992	Rinehart et al.	540	466	
	AC	5,256,663	10/26/1993	Rinehart et al.	514	250	
	AD	5,478,932	12/26/1995	Rinehart et al.	540	466	
	AE	5,654,426	08/05/1997	Rinehart et al.	540	466	
	AF	5,721,362	02/24/1998	Corey et al.	540	466	
	AG	5,985,876	11/16/1999	Rinehart et al.	514	250	
	AH	6,124,292	09/26/2000	Corey	514	250	
	AI	6,316,214	11/13/2001	Rinehart et al.	435	25	
	AJ	6,348,467	02/19/2002	Corey	514	250	
	AK	6,686,470	02/03/2004	Danishefsky et al.	544	338	
	AL	2003/0216397	11/20/2003	Flores et al.	514	249	
	AM	2004/0002602 A1	01/01/2004	Francesch et al.	540	453	·
	AN	2004/0019056	01/29/2004	Manzanares et al.	514	249	

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner Initial	Examiner Desig. Document Publication Country or Initial ID Number Date Patent Office Class Subclass							ation No
maai	AO	0 309 477 B1	11/06/1991	EPO EPO	C07G	11/00	Yes	Z JNO.
	AP	59-225189	12/18/1984	Japan	C07D	471/18	Abstract	
	AQ	60-84288	05/13/1985	Japan	C07D	471/08	Abstract	
	AR	WO 87/07610	12/17/1987	WIPO	C07G	11/00		
	AS	WO 92/09607	06/11/1992	WIPO	C07D	515/22		·
	AT	WO 98/12198	03/26/1998	WIPO	C07D	491/12		-
	AU	WO 98/46080	10/22/1998	WIPO	A01N	43/58		-
	AV	WO 99/58125	11/18/1999	WIPO	A61K	31/36		
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	AX	WO 00/69862	11/23/2000	WIPO	C07D	515/00		

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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (ModRed) P U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14620-017001	Application No. 09/971,852	
Information Disclosure Statement by Applicant Use several sheets if necessary)	Applicant Andres Francesch et al.		
(Use several sheets if necessary)	Filing Date October 3, 2001	Group Art Unit 1651	

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Transl Yes	lation No
	AY	WO 01/77115	10/18/2001	WIPO	C07D	515/22		
	AZ	WO 01/87894	11/22/2001	WIPO	C07D	515/22		
	AAA	WO 01/87895	11/22/2001	WIPO			<u> </u>	

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
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	ABB	Arai, T. et al., "The Structure of a Novel Antitumor Antibiotic, Saframycin A", Experientia, Vol. 36, pp. 1025-1027 (1980)
	ACC	Arai, Tadashi et al., "Increased Production of Saframycin A and Isolation of Saframycin S", The Journal of Antibiotics, Vol. XXXIII, No. 9, pp. 951-960 (1980)
.,	ADD	Arai, Tadashi et al., "Directed Biosynthesis of New Saframycin Derivatives with Resting Cells of Streptomyces lavendulae", Antimicrobial Agents and Chemotherapy, Vol. 28, No. 1, pp 5-11 (1985)
	AEE	Arai, Tadashi et al., "Isoquinolineinones from Actinomycetes and Sponges", <u>The Alkaloids</u> Chemistry and Pharmacology, Vol. XXI, pp. 56-100 (1983)
	AFF	Arai, Tadashi et al., "New Antibiotics, Safraycins A, B, C, D and E", The Journal of Antibiotics, Vol. XXX, No. 11, pp. 1015-1018 (1977)
	AGG	Arai, Tadashi et al., "Increased Production of Saframycin A and Isolation of Saframycin S", The Journal of Antibiotics, Vol. XXXIII, No. 9, pp. 951-960 (1980)
	АНН	Asaoka, Takemitsu et al., "A New Saframycin, Saframycin R", The Journal of Antibiotics, Vol. XXXV, No. 12, pp. 1708-1710 (1982)
	AII	Barton, Derek H.R. et al, "Synthesis and Properties of a Series of Sterically Hindered Guanidine Bases ¹ ", <u>Journal of the Chemical Society Perkin Transactions I</u> , No. 9, pp. 2085-2090 (1982)
	AJJ	Brown, J.M., "NCI's Anticancer Drug Screening Program May Not Be Selecting for Clinically Active Compounds," Oncol. Res. 9(5):213-215 (1997)
	AKK	Cable, Karl M. et al., "The Biosynthesis of Tuberin from Tyrosine and Glycine; Observations on the Stereochemistry Associated with the Conversion of Glycine through Methylenetetrahydrofolate into Methenyltetrahydrofolate", Journal of the Chemical Society Perkins Transactions I, No. 7, pp. 1593-1598 (1987)
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	AMM	Corey, E.J. et al., "Enantioselective Total Synthesis of Ecteinascidin 743", <u>Journal of the American</u> Chemical Society, Vol. 118, No. 38, pp. 9202-9203 (1996)
	ANN	Cuevas, Carmen et al., "Synthesis of Ecteinascidin ET-743 and Phthalascidin Pt-650 from Cyanosafracin B", Organic Letters, Vol. 2, No. 16, pp. 2545-2548 (2000)
	A00	Draetta, G. and Pagano, M., "Annual Reports in Medicinal Chemistry, Vol. 31," Academic Press, San Diego, pp. 241-246 (1996)
	APP	Eckhardt, S.G. et al., "Activity of ecteinascidin, a novel marine cytotoxic, against primary human tumor colony-forming units", Proceedings of the American Association for Cancer Research, Vol. 37, #2791, pp. 409 (1996)

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Information Disclosure Statement AUG 0 6 2004 (Use several sheets if necessary) (237 CFR §1.98(6))		Applicant Andres Francesch et al.		
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Examiner Initial	Desig.	Document
	AQQ	Faircloth, G. et al., "Ecteinascidin-743 (ET743): in vitro (IVT) and in vivo (INV) Results in Tumor Models", The European Journal of Cancer, Vol. 32A, Supp. 1, #24 O, pp. S5 (1996)
	ARR	Flam, Faye, "Chemical Prospectors Scour the Seas for Promising Drugs", Science, Vol. 266, pp. 1324-1325 (1994)
	ASS	Frincke, James M. et al., "Antimicrobial Metabolites of the Sponge Reniera sp.", <u>Journal of the American Chemical Society</u> , Vol. 104, pp. 265-269 (1982)
***	ATT	Fukuyama, Tohru et al., "Total Synthesis of (±)-Saframycin A", <u>Journal of American Chemical Society</u> , Vol. 112, pp. 3712-3713 (1990)
	AUU	Fukuyama, Tohru et al., "Stereocontrolled Total Synthesis of (±)-Saframycin B", <u>Journal of American Chemical Society</u> , Vol. 104, pp. 4957-4958 (1982)
	AVV	Garcia-Rocha, M. et al., "Characterisation of antimitotic products from marine organisms that disorganize the microtubule network: ecteinascidin 743, isohomohalichondrin-B and LL-15", Briti Journal of Cancer, Vol. 73, pp. 875-883 (1996)
	AWW	Goldwasser, F, et al. "Characterization of ecteinascidin 743-induced DNA damages in cells", Proceedings of the American Association for Cancer Research, Vol. 39, #4066, pp. 598 (1998)
	AXX	Guan, Yue et al., "Molecular and Crystal Structures of Ecteinascidins: Potent Antitumor Compount from the Caribbean Tunicate Ecteinascidia Turbinata", <u>Journal of Biomolecular Structure & Dynamics</u> , Vol. 10, No. 5, pp. 793-818 (1993)
	AYY	Gulavita, Nanda K., et al., "Antimicrobial Constituents of a Sponge-Nudibranch Pair from Sri Lanka", <u>Bioactive Compounds from Marine Organisms</u> , Oxford & IBH Publishing Co. Pvt. Ltd., p 229-233 (1991)
	AZZ	He, Hai-yin et al., "Renieramycins E and F from the Sponge Reniera sp.: Reassignment of the Stereochemistry of the Renieramycins", The Journal of Organic Chemistry, Vol. 54, No. 24, pp. 5822-5824 (1989)
	AAAA	Hendriks, H.R. et al., "High antitumor activity of ET743 in human tumor xenograft models", Proceedings of the American Association for Cancer Research, Vol. 37, #2653, pp. 389 (1996)
	ABBB	Ikeda, Yoshifumi et al., "Safracins, New Antitumor Antibiotics I. Producing Organism, Fermentation and Isolation", The Journal of Antibiotics, Vol. XXXVI, No. 10, pp. 1279-1283 (198
	ACCC	Ikeda, Yoshifumi et al., "Safracins, New Antitumor Antibiotics I. Producing Organism, Fermentation and Isolation", The Journal of Antibiotics, Vol. XXXVI, No. 10, pp. 1284-1289 (198
	ADDD	Koenig, Karl E., "The Applicability of Asymmetric Homogeneous Catalytic Hodrogenation", Asymmetric Synthesis, Ed. Morrison, Academic Press, Inc., Orlando, FL, Vol. 5, pp. 71 (1985)
	AEEE	Kofron, William G. et al., "A Convenient Method for Estimation of Alkyllithium Concentrations", The Journal of Organic Chemistry, Vol. 41, No. 10, pp. 1879-1880 (1976)
	AFFF	Kubo, Akinori et al., "Structure of Saframycin D, A New Dimeric Isoquinolinequinone Antibiotic' Chem. Pharm. Bull., Vol. 35, No. 1, pp. 440-442 (1987)
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	АННН	Ito, Yoichiro, "High-Speed Countercurrent Chromatography", <u>Critical Reviews in Analytical Chemistry</u> , Vol. 17, No. 1, pp. 65-143 (1986)
	AIII	Lichter, W. et al., "Biological Activities Exerted by Extracts of Ecteinascidia Turbinata", Food and Drugs from the Sea Proceedings, pp. 117-127 (1972)

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	AUG 0 6 2004 () by A	losure Statement plicant	Applicant Andres Francesch et al.		,
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	AJJJ	and ¹³ C NMR and its Interactions with DNA in Soloution", <u>The Journal of Antibiotics</u> , Vol. XXXVI,			
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	AKKK	Deoxyribonucleic Acid by the Antitumor Antibiotics Saframycins A and C", Biochemistry, Vol. 21,			
		No. 3, pp. 419-428 (1982)			
	ALLL	Martinez, Eduardo J. et al., "Phthalascidin, a synthetic antitumor agent with potency and mode of			
		action comparable to ecteinascidin 743", Chemistry, Vol. 96, pp. 3496-3501 (1999)			
	AMMM	Mikami, Yuzuru et al., "Structural Studies on Minor Components of Saframycin Group Antibiotics			
		Saframycins F, G and H", The Journal of Antibiotics, Vol. XLI, No. 6, pp. 734-740 (1988)			
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	ANNN	multiple-dose regimen", Proceedings of the American Association for Cancer Research, Vol. 38,			
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	A000	Moore, B.M. et al., "The NMR model of an ecteinascidin 743-DNA adduct", Proceedings of the			
	ACCC	American Association for Cancer Research, Vol. 38, #2105, pp. 314 (1997)			
	APPP	Nakagawa, Masako et al., "Total Synthesis of (-)-Eudistomin L and (-)-Debromoeudistomin L",			
	AIII	Journal of the American Chemical Society, Vol. 111, No. 7, pp. 2721-2722 (1989)			
	4000	Parulekar, A.H. et al., "Bioactivity and Chemical Ecology of Some Interdial Animals", Bioactivity			
	AQQQ	and Chemical Ecology, pp. 29-35			
	ARRR	Pommier, Yves et al., "DNA Sequence- and Structure-Selective Alkylation of Guanine N2 in the			
		DNA Minor Groove by Ecteinascidin 743, a Potent Antitumor Compound from the Caribbean			
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	ASSS	Pretsch et al., Tables of Spectral Data for Structure Determination of Organic Compounds, pp. H125			
	Abbb	(1983)			
		Reid, Joel M. et al., "Preclinical pharmacology of ecteinascidin 729, a marine natural product with			
	ATTT	potent antitumor activity", Cancer Chemotherapy and Pharmacology, Vol. 38, No. 4, pp. 329-334			
		(1996)			
	AUUU	Remers, William A., "Saframycins, Renieramycins, and Safracins", The Chemistry of Antitumor			
	AUUU	Antibiotics, Vol. 2, pp. 93-119 (1988)			
	AVVV	Rinehart et al., "Novel Bioactive Natural Products from Marine Organisms", Topics in			
		Pharmaceutical Sciences 1989, pp. 613-626, D.D. Breimer, D.J.A. Cromwelin, K.K. Midha, Eds.,			
		Amsterdam Medical Press B.V. Noordwijk, The Netherlands (1989)			
	AWWW	Rinehart, Kenneth L. et al., "Applications of High-Resolution Tandem FAB Mass Spectrometry",			
		Biological Mass Spectrometry, eds. Burlingame et al., Elsevier Amsterdam, pp. 233-258 (1990)			
	AXXX	Rinehart, Kenneth L. et al., "Biologically active natural products", Pure and Applied Chemistry,			
		Vol. 62, No. 7, pp. 1277-1280 (1990)			
	AYYY	Rinehart, Kenneth L. et al., "Bioactive Compounds from Aquatic and Terrestrial Sources", Journal			
		of Natural Products, Vol. 53, No. 4, pp. 771-792 (1990)			
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		Vol. 55, No. 15, pp. 4512-4515 (1990)			

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./	Substitute Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 14620-017001	Application No. 09/971,852	
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PATER	(37 CFR §1.98(b))		Filing Date October 3, 2001	Group Art Unit 1651	

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·	ABBBB	Intermediate to Saframycin A", <u>The Journal of Organic Chemistry</u> , Vol. 54, No. 22, pp. 5391-5395 (1989)		
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	ADDDD			
 -	AEEEE	Shamma, Maurice et al., Carbon-13 NMR Shift Assignments of Amines and Alkaloids, pp. 206		
	<u> </u>	(1979)		
	AFFFF	Still, W. Clark et al., "Rapid Chromatographic Technique for Preparative Separations with Moderate Resolution", <u>Journal of Organic Chemistry</u> , Vol. 43, No. 14, pp. 2923-2925 (1978)		
	AGGGG	Takahaski, Katsuhiro, "New Antibiotics, Saframycins A, B, C, D and E", The Journal of Antibiotics Vol. XXX, No. 11, pp. 1015-1018 (1977)		
		Takahaski, Katsuhiro et al., "Microbial Conversion of Saframycin A to 25-Dihydrosaframycin A		
	AHHHH	and 21-Decyano-25-Dihydrosaframycin A (25-Dihydrosaframycin B) and Their Biological		
		Activities", The Journal of Antibiotics, Vol. XXXV, No. 2, pp. 196-202 (1982)		
-		Trowitzsch-Kienast, Wolfram et al., "Isolierung und Strukturaufklarung der Saframyeine Mx 1 und		
	AIIII	Mx 2, neue antitumor-aktive Antibiotika aus Myxococcus xanthus", Liebigs Ann. Chem., Vol.		
		XXXV, pp. 475-481 (1988)		
		Witten, Jane L. et al., "Structures of Two Cockroach Neuropeptides Assigned by Fast Atom		
	AJJJJ	bombardment Mass Spectrometry", Biochemical and Biophysical Research Communications, Vol.		
		124, No. 2, pp. 350-358 (1984)		
	AKKKK	Wright, Amy E. et al., "Antitumor Tetrahydroisoquinoline Alkaloids from the Colonial Ascidian		
	AVVVV	Ecteinascidia Turbinata", The Journal of Organic Chemistry, Vol. 55, No. 15, pp. 4508-4512 (1990)		
	ALLLL	Yazawa, Katsukiyo et al., "Bioconversions of Saframycin A Specific to some Genera of		
		Actinomycetes", The Journal of Antibiotics, Vol. XXXV, No. 7, pp. 915-917 (1982)		
		Yazawa, Katsukiyo et al., "Isolation and Structural Elucidation of New Saframycins Y3, Yd-1, Yd-		
	AMMMM	2, Ad-1, Y2b and Y2b-d", The Journal of Antibiotics, Vol. XXXIX, No. 12, pp. 1639-1650 (1986)		
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	WIAIMIMIA	Deoxyribonucleic Acids", Chemico-Biological Interactions, Vol. 52, No. 3, pp. 361-375 (1985)		

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